

using a fertility associated antigen having SEQ ID NO: 2 or a recombinantly produced fertility associated antigen; and

Group III: Claims 55-56, drawn to a transgenic non-human mammal or avian comprising and expressing the isolated polynucleotide sequence comprising SEQ ID NO:1 or SEQ ID NO:2.

If Group II is elected, the Examiner is also requiring an election of a single disclosed Species as follows:

a) mammalian sperm cells

If this Species is elected, then a further election is required from:

- a1) buffalo;
- a2) cattle or cow;
- a3) horses;
- a4) humans;
- a5) mice;
- a6) pigs; or
- a7) sheep.

b) avian sperm cells

If this Species is elected, then a further election is required from:

- b1) a chicken; or
- b2) a turkey.

If Group III is elected, the Examiner is also requiring an election of a single disclosed Species as follows:

c) transgenic non-human mammal

If this Species is elected, then a further election is required from:

- c1) a cow;
- c2) a goat;
- c3) a pig; or
- c4) a sheep.

d) transgenic avian.

Applicants elect, with traverse, Group I, Claims 1-7 and 9-16. Applicants note that an election of Species is not required with the election of Group I.

Applicants acknowledge the recognition by the Examiner that Claims 17, 24, and 55 link the claims of Groups I-III and that the Restriction Requirement will be withdrawn with the allowance of these claims.

Applicants traverse the Restriction Requirement on the grounds that the Office has not shown that a burden exists in searching all the claims of the present application.

Moreover, the MPEP in §803 states as follows:

“If the search and examination of an entire application can be made without a serious burden, the Examiner must examine it on the merits, even though it includes claims to distinct or independent inventions.”

Applicants submit herewith a copy of the International Preliminary Examination Report from International stage of this application. The International Searching Authority did not take the position that unity of invention was lacking in the International application and examined all claims together. From the fact that the International Searching Authority has searched all of the claims together and did so without an undue burden, Applicants submit that a similar search and examination of all the claims would not impose a serious burden on the Office.

Applicants respectfully submit that the above-identified application is now in condition for examination on the merits, and early notice of such action is earnestly solicited.

Respectfully submitted,

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**22850**

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To: ECKHARD H. KUESTERS OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C. 1755 JEFFERSON DAVIS HIGHWAY FOURTH FLOOR ARLINGTON, VA 22202-3040 <i>RECEIVED 10/14/00</i> OBLON, SPIVAK, McCLELLAND MAIER & NEUSTADT, P.C. DOCKETING DEPT. <i>DOCKETED 10/14/00</i>
Initials/Date Docketed: Type of Resp(s): Due Date(s):

**PCT**

## NOTIFICATION OF TRANSMITTAL OF INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Rule 71.1)

**02 OCT 2002**

Applicant's or agent's file reference  <b>210707WO</b>	<b>IMPORTANT NOTIFICATION</b>	
International application No.  <b>PCT/US01/22097</b>	International filing date (day/month/year)  <b>16 JULY 2001</b>	Priority Date (day/month/year)  <b>14 JULY 2000</b>
<b>Applicant</b> <b>THE ARIZONA BOARD OF REGENTS ON BEHALF OF THE UNIVERSITY OF ARIZONA</b>		

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

**4. REMINDER**

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices)(Article 39(1))(see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231  Facsimile No. (703) 305-3230	Authorized officer <div style="text-align: center; border: 1px solid black; border-radius: 50%; width: 40px; height: 40px; margin: 0 auto;"></div> PATRICK NOLAN <i>Jayne Bradgers Jr.</i> Telephone No. (703) 308-1235
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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference  210707W0	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)
International application No.  PCT/US01/22097	International filing date (day/month/year)  16 JULY 2001	Priority date (day/month/year)  14 JULY 2000
International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet.		
Applicant THE ARIZONA BOARD OF REGENTS ON BEHALF OF THE UNIVERSITY OF ARIZONA		

<ol style="list-style-type: none"> <li>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</li> <li>2. This REPORT consists of a total of <u>4</u> sheets.</li> </ol> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of _____ sheets.</p>
<ol style="list-style-type: none"> <li>3. This report contains indications relating to the following items:           <ul style="list-style-type: none"> <li>I <input checked="" type="checkbox"/> Basis of the report</li> <li>II <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of report with regard to novelty, inventive step or industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability, citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul> </li> </ol>

Date of submission of the demand  <i>13 February 2002</i>	Date of completion of this report  19 SEPTEMBER 2002
Name and mailing address of the IPEA/US  Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231	Authorized officer  <i>Patrick Nolan</i> PATRICK NOLAN
Facsimile No. (703) 305-5230	Telephone No. (703) 308-1235

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US01/22097

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. statement**

Novelty (N)	Claims 1-8 and 10-56	YES
	Claims 9	NO
Inventive Step (IS)	Claims 1-8 and 10-56	YES
	Claims 9	NO
Industrial Applicability (IA)	Claims 1-56	YES
	Claims NONE	NO

**2. citations and explanations (Rule 70.7)**

Claim 9 lacks novelty under PCT Article 33(2) as being anticipated by US Patent 5,693,496.

The '496 patent teaches a method of producing a fertility associated antigen recombinantly.  
 The prior art teachings anticipate the claimed invention.

Claims 1-8 and 10-56 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest SEQ ID NO. 1 or SEQ ID NO. 3 or using said sequences in the recited methods.

————— NEW CITATIONS —————  
 US 5,693,496 A (ALVES et al) 02 December 1997, see entire document.

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.  
PCT/US01/22097

**Supplemental Box**

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

**Sheet 10**

**CLASSIFICATION:**

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): A61K 39/00; C12N 15/09; C07K 1/00; C07H 21/04 and US Cl.: 424/184.1; 435/69.3; 530/395; 536/23.5